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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,703

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Kazuhito Enomoto

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SUITE 370

ALEXANDRIA, VA 22314

EXAMINER

HERNANDEZ, NELSON D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/801,703	Applicant(s) ENOMOTO ET AL.	
	Examiner Nelson D. Hernández	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,23,24,32 and 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-22, and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/20/07, 1/8/07 & 3/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species III (Fig. 10) in the reply filed on November 30, 2007 is acknowledged.
2. Examiner noticed that **claims 32 and 33** belong to one of the non-elected species (Figs. 1-9). For examining purposes claims 32 and 33 are withdrawn from consideration.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3, 9, 10, 12, 15-18 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers, US 2003/0071799 A1 in view of Murata, US Patent 6,009,305.**

Regarding claim 1, Myers discloses a method for signal transmission between a television camera (page 2, ¶ 0022, ¶0028) and a video apparatus (receiver 140 as shown in fig. 1; receiver 310 as shown in fig. 5) which are connected to each other through a transmission cable (having data pairs 110, 120, 130 and 150 as shown in figs. 1 and 5), said method comprising the steps of: Multiplexing (performed by transmitter

100 as shown in fig. 1; see also fig. 5: 300) a video signal and first control signals which are obtained from said television camera, by using a first multiplexing circuit (the transmitter 100 combines the video signal with the control signals and clock signals; page 2, ¶ 0021-0023), to generate a first serial signal; transmitting said first serial signal by using a predetermined first signal line (i.e. data pair 110, 120 or 130 as shown in fig. 1; see also fig. 5) in said cable (which is connecting to the video apparatus); transmitting a second control signal (clock signal) from said television camera to said video apparatus by using a predetermined second signal line (data pair 150 as shown in figs. 1 and 5) in said cable (Page 2, ¶ 0023; page 3, ¶ 0033); separating said first serial signal obtained (performed by using decoder as shown in fig. 1) from said first signal line into a video signal and said first control signals by a first de-multiplexing circuit (decoder deserializing circuit as shown in figs. 1 and 5) of said video apparatus (Page 2, ¶ 002-0027; page 3, ¶ 0030-0031); and transmitting third control signals (as shown in figs 4 and 5, Myers teaches the concept of using multiple return lines to transmit control and data signals from the video receiver to the transceiver 300, which may be connected to a video camera as taught in page 2, ¶ 0022. See also page 2 – page 3, ¶ 0029-0035) from said video apparatus to said television camera by using third and fourth signal lines in said cable (Page 2, ¶ 0021-0028; page 3, ¶ 0029-0035).

Myers does not explicitly disclose that the multiplexing circuit is a time-division multiplexing circuit.

However, Murata discloses a video signal multiplex transmission system (Fig. 3), wherein a camera (100) in a second video appliance (Fig. 3: 1) send the image data,

control data and voice signal is multiplexed by a time-division multiplexing circuit (Fig. 3: 5-1) to transmit said signals into a single serial signal to be transmitted to a video appliance (Fig. 3: 2), wherein said video appliance having the camera also receives data from the second video appliance (Col. 4, line 60 – col. 5, line 42; col. 5, line 64 – col. 6, line 45; col. 7, line 1—col. 8, line 9; col. 9, lines 3-18; col. 11, lines 12-45).

Therefore, taking the combined teaching of Myers in view of Murata as a whole, it would have been obvious to one of an ordinary skill in the art to multiplex the video and control signals using a time-division multiplexer. The motivation to do so would have been to reduce the amount of cable or wire needed for transmission as well as circuitry and to reduce noises or distortion as suggested by Murata (Col. 11, lines 12-45).

Regarding claim 2, Myers discloses that the first control signals include control signals used in said video apparatus (page 2, ¶ 0021-0023) and said second signal includes a clock signal (Page 2, ¶ 0023; page 3, ¶ 0033) from said television camera.

Regarding claim 3, the combined teaching of Myers in view of Murata as discussed and analyzed in claim 1 teaches that said first serial signal is obtained by converting an image signal for each pixel of said television camera and said first control signals into serial data (by teaching multiplexing the signal from the video camera to form a single serial signal, Myers discloses converting an image signal for each pixel of said television camera and said first control signals into serial data; page 2, ¶ 0021-0023; page 3, ¶ 0033) which has a divided-by-n (n : integer) period of that of said clock signal (Murata discloses that the plurality of signals (image signals, control signals and

voice signal) have a divided-by-n (n: integer) period of that of said clock signal (as shown in figs. 4A-4E, the serial signal having the plurality of different signals (see fig. 4A) are from in a group of signals (D, Y, Cr, Cb, A₁, A₂, A₃, A₄) which have a divided-by-n period of the clock signal (signal covered by each group as shown in fig. 4A)) (Col. 5, line 51 – col. 6, line 61)). Grounds for rejecting claim 1 apply here.

Regarding claim 9, claim 9 discloses an apparatus performing the method of claim 1. Limitations have been discussed and analyzed in claim 1. Furthermore, Myers discloses a first and a second connection circuit to establish communication between the camera and the video apparatus (by teaching that the transmitter is electrically connected to the receiver, see page 1, ¶ 0007; page 2, ¶ 0027-0029; page 4, ¶ 0048).

Regarding claim 10, limitations have been discussed and analyzed in claim 1.

Regarding claim 12, limitations have been discussed and analyzed in claim 3.

Regarding claim 15, the combined teaching of Myers in view of Murata fails to teach that said third control signal includes a signal for controlling an image sampling period for images picked up by said television camera. However, Official Notice is taken that the concept of remotely controlling the sampling period for images taken in a video camera is well known in the art and would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers and Murata to include in the third signal a signal to control the image sampling period for images picked up by said television camera. The motivation to do so would have been to allow an operator to control the capture operation for different illumination

conditions or for capturing images with objects in motion (i.e. sports events or normal scenes).

Regarding claim 16, claim 16 discloses an apparatus performing the method of claim 1. Limitations have been discussed and analyzed in claim 1.

Regarding claim 17, limitations have been discussed and analyzed in claim 2.

Regarding claim 18, limitations have been discussed and analyzed in claim 3.

Regarding claim 25, limitations have been discussed and analyzed in claim 1.

Regarding claim 26, limitations have been discussed and analyzed in claim 1.

Regarding claim 27, limitations have been discussed and analyzed in claim 3.

5. Claims 4, 19 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers, US 2003/0071799 A1 in view of Murata, US Patent 6,009,305 and further in view of Monroe, US Patent 7,131,136 B2.

Regarding claim 4, the combined teaching of Myers in view of Murata fails to teach that the first control signal includes an IP signal.

However, Monroe discloses a surveillance system (See fig. 6) comprising a plurality of cameras connected to a network wherein data from a plurality of cameras (C1-C4) is multiplexed into a single signal to be send through a communication line (60) to a video processor (See figs. 6 and 7), wherein the signal sent from the multiplexer includes the IP data of the cameras in the network in order to allow a user to select between the cameras in the surveillance system (Col. 33, lines 26-67; col. 41, lines 31-59).

Therefore, taking the combined teaching of Myers in view of Murata and further in view of Monroe as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers and Murata by transmitting an IP signal with the first control signal. The motivation to do so would have been to allow the operator to select from a plurality of video signals received from multiple cameras as suggested by Monroe (Col. 33, lines 26-67).

Regarding claim 19, limitations have been discussed and analyzed in claim 4.

Regarding claim 28, limitations have been discussed and analyzed in claim 4.

6. Claims 5, 13, 14, 20, 21, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers, US 2003/0071799 A1 in view of Murata, US Patent 6,009,305 and further in view of Ueno et al., US Patent 5,479,206.

Regarding claim 5, the combined teaching of Myers in view of Murata fails to teach that the third control signals include a trigger and a control signal for controlling said television camera.

However, Ueno et al. discloses a remotely controlled imaging device (Figs. 1: 10 and 2: 10) wherein a computer (30) sends control signals through a communication interface to the imaging device to control its operation, wherein said control signals include a trigger signal to control the capture of the imaging device, control of the exposure of the imaging device, zoom control, f-stop value, etc. (Col. 11, lines 24-67; col. 12, lines 32-48; col. 17, lines 13-50; col. 18, lines 38-53; col. 27, lines 20-56).

Therefore, taking the combined teaching of Myers in view of Murata and further in view of Ueno et al. as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers and Murata by including a trigger and a control signal for controlling said television camera in the third control signal. The motivation to do so would have been to allow an operator to control functions of the camera as well as setting other conditions for image capturing allowing the operator to verify the contents of the captured image data as suggested by Ueno et al. (Col. 2, lines 44-67).

Regarding claim 13, although Myers discloses that said second connection circuit has a second multiplexing circuit (see figs. 4 and 5) for time-division multiplexing control signals obtained from said video apparatus onto said third signal line; and said first connection circuit has a second de-multiplexing circuit (See figs. 4 and 5) for de-multiplexing said multiplexed control signal obtained from said third signal line, the combined teaching of Myers in view of Murata fails to teach that said multiplexing circuit for time-division multiplexing trigger signals obtained from said video apparatus onto said third signal line; and that said second de-multiplexing circuit de-multiplex said multiplexed trigger signal obtained from said third signal line.

However, Ueno et al. discloses a remotely controlled imaging device (Figs. 1: 10 and 2: 10) wherein a computer (30) sends control signals through a communication interface to the imaging device to control its operation, wherein said control signals include a trigger signal to control the capture of the imaging device, control of the

exposure of the imaging device, zoom control, f-stop value, etc. (Col. 11, lines 24-67; col. 12, lines 32-48; col. 17, lines 13-50; col. 18, lines 38-53; col. 27, lines 20-56).

Therefore, taking the combined teaching of Myers in view of Murata and further in view of Ueno et al. as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers and Murata by having the multiplexing circuit for time-division multiplexing trigger signals obtained from said video apparatus onto said third signal line; and that said second de-multiplexing circuit de-multiplex said multiplexed trigger signal obtained from said third signal line. The motivation to do so would have been to allow an operator to control functions of the camera as well as setting other conditions for image capturing allowing the operator to verify the contents of the captured image data as suggested by Ueno et al. (Col. 2, lines 44-67).

Regarding claim 14, limitations have been discussed and analyzed in claim 13.

Regarding claim 20, limitations have been discussed and analyzed in claim 5.

Regarding claim 21, limitations have been discussed and analyzed in claim 5.

Regarding claim 29, limitations have been discussed and analyzed in claim 5.

Regarding claim 30, limitations have been discussed and analyzed in claim 5.

7. Claims 6, 22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers, US 2003/0071799 A1 and Murata, US Patent 6,009,305 in view of Ueno et al., US Patent 5,479,206 and further in view of Monroe, US Patent 7,131,136 B2.

Regarding claim 6, the combined teaching of Myers in view of Murata and further in view of Ueno et al. fails to teach that the first control signal includes an IP signal.

However, Monroe discloses a surveillance system (See fig. 6) comprising a plurality of cameras connected to a network wherein data from a plurality of cameras (C1-C4) is multiplexed into a single signal to be send through a communication line (60) to a video processor (See figs. 6 and 7), wherein the signal sent from the multiplexer includes the IP data of the cameras in the network in order to allow a user to select between the cameras in the surveillance system (Col. 33, lines 26-67; col. 41, lines 31-59).

Therefore, taking the combined teaching of Myers and Murata in view of Ueno et al. and further in view of Monroe as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers, Murata and Ueno et al. by transmitting an IP signal with the first control signal. The motivation to do so would have been to allow the operator to select from a plurality of video signals received from multiple cameras as suggested by Monroe (Col. 33, lines 26-67).

Regarding claim 22, limitations have been discussed and analyzed in claim 6.

Regarding claim 31, limitations have been discussed and analyzed in claim 6.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers, US 2003/0071799 A1 in view of Murata, US Patent 6,009,305 and further in view of Tonkin et al., US Patent 6,084,631.

Regarding claim 11, the combined teaching of Myers in view of Murata fails to teach that said transmission cable further has a line for supplying power from said video apparatus to said television camera.

However, Tonkin et al. discloses the concept of having a camera (112) connected to a remote device (main processor 100) using a transmission cable (114), wherein said main processor supplies power to the camera through a two twisted pairs in the transmission cable (See fig. 2; col. 4, line 48 – col. 5, line 31).

Therefore, taking the combined teaching of Myers in view of Murata and further in view of Tonkin et al. as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to modify the teaching of Myers and Murata by including in the transmission cable a line for supplying power from said video apparatus to said television camera. The motivation to do so would have been to allow reduce the amount of components in the camera device thus reducing the size of the camera.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernández whose telephone number is (571)272-7311. The examiner can normally be reached on 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernández
Examiner
Art Unit 2622

NDHH
March 14, 2008

/Lin Ye/
Supervisory Patent Examiner, Art Unit 2622